IN THE CLAIMS:

The status of each claim that has been introduced in the above-referenced application is identified in the ensuing listing of the claims. This listing of the claims replaces all previously submitted claims listings.

1. (Currently amended) A method of fabricating a protective layer on a semiconductor device, comprising:

providing at least one semiconductor die having an active surface with at least one bond pad exposed thereover;

selecting at least one portion of the active surface to be covered with at least a first layer of a protective material;

forming at least the first layer with the protective material in an unconsolidated state at least over the at least one portion; and

selectively altering the state of the first layer of protective material over at least a portion of the at least one portion from the unconsolidated state to at least a semisolid state, while leaving protective material over other portions of the active surface in the unconsolidated state, the protective material in at least the semisolid state and the first layer with the protective material in the unconsolidated state having substantially the same thicknesses.

2. (Previously presented) The method of claim 1, wherein forming the at least a first layer with the protective material in the unconsolidated state comprises forming the at least a first layer with the protective material being in a liquid state.

3. (Canceled)

4. (Previously presented) The method of claim 1, wherein selectively altering comprises directing a controlled, discrete beam of radiation onto the protective material located over the at least one portion.

5. (Previously presented) The method of claim 4, wherein directing comprises directing a controlled, discrete beam of focused ultraviolet laser radiation.

6. (Previously presented) The method of claim 1, wherein forming the at least the first layer comprises forming the at least the first layer from a liquid resin controllably curable to a solid state.

7. (Previously presented) The method of claim 1, wherein providing comprises providing a wafer having a plurality of semiconductor dice.

8. (Previously presented) The method of claim 1, further comprising:

selecting at least one second portion of the active surface covered with the at least a first layer of protective material to be covered with a second layer of protective material, the at least one second portion being superimposed, contiguous with, and mutually adhered to the at least one portion of the at least a first layer;

forming the second layer with the protective material in an unconsolidated state over at least the at least one second portion of the active surface; and

selectively altering the state of the second layer of protective material over at least a portion of the at least one second portion from the unconsolidated state to at least a semisolid state while leaving some protective material of the second layer over other regions of the active surface in the unconsolidated state.

9. (Previously presented) The method of claim 1, further comprising removing at least some of the protective material in the unconsolidated state from the at least one semiconductor die.

10. (Previously presented) The method of claim 9, further comprising subjecting the protective material in semisolid state over at least one semiconductor die to a substantially full cure.

11. (Previously presented) The method of claim 1, wherein selectively altering comprises leaving the protective material over the at least one bond pad in the unconsolidated state.

12. (Currently amended) A method of forming a layer of protective material on a specified area on an active surface of one or more selected dice of a plurality of semiconductor dice of a wafer, comprising:

selecting at least one portion of the active surface of each of the one or more selected dice to be covered with the layer of protective material;

forming at least one layer of protective material in an unconsolidated state over at least the at least one portion of the active surface; and

selectively altering the state of the protective material of the at least one layer of protective material over at least a portion of the at least one portion of the active surface to at least a semisolid state, while leaving the protective material over other regions of the active surface, including ~~over bond pads of the one or more selected~~regions between at least two adjacent semiconductor dice, in a substantially unconsolidated state.

13. (Previously presented) The method of claim 12, further comprising:

selecting at least one second portion of the active surface at least partially overlying the at least one portion of the at least one layer of protective material to be covered with a second layer of protective material;

forming the second layer with the protective material in an unconsolidated state over at least one second portion; and

selectively altering the state of the protective material of the second layer over at least a portion of the at least one second portion from the unconsolidated state to an at least semisolid state, the at least one second portion being superimposed over, contiguous with, and mutually adhered to the at least one portion of the at least one layer of protective material, while leaving protective material of the second layer over other regions of the active surface in the unconsolidated state.

14. (Previously presented) The method of claim 12, further comprising removing at least some of the protective material in the unconsolidated state from the active surface.

15. (Previously presented) The method of claim 13, further comprising subjecting at least the protective material in the at least semisolid state to a secondary curing for further solidifying the protective material.

16. (Previously presented) The method of claim 12, further comprising singulating at least the one or more selected dice from the wafer.

17. (Previously presented) The method of claim 15, further comprising singulating at least the one or more selected dice from the wafer.

18. (Previously presented) The method of claim 17, wherein singulating is effected before the secondary curing.

19. (Previously presented) The method of claim 17, wherein singulating is effected after the secondary curing.

20. (Currently amended) The method of claim 12, wherein selectively altering comprises leaving the protective material overlying ~~regions of the wafer lying between adjacent ones~~bond pads of the one or more selected dice in the unconsolidated state.

21. (Previously presented) The method of claim 12, wherein forming the at least one layer of protective material comprises substantially completely covering the wafer with the protective material in the unconsolidated state.

22. (Canceled)

23. (Previously presented) The method of claim 12, wherein selectively altering comprises subjecting the at least a portion of the at least one portion to a beam of radiation.

24. (Previously presented) A method for forming a protective layer on a selected portion of a surface of a semiconductor die, comprising:

providing the semiconductor die with an active surface thereof being attached to a lead frame of a lead frame strip;

supporting the semiconductor die on a platform with a back side of the semiconductor die being placed on the platform;

submerging at least the semiconductor die in liquid resin to form a layer of the liquid resin over the active surface; and

subjecting selected portions of the layer to a controllable beam of radiation to change the liquid resin in the selected portions to an at least semisolid state.

25. (Previously presented) The method of claim 24, wherein subjecting comprises subjecting the selected portions to a beam of UV radiation.

26. (Previously presented) The method of claim 24, further comprising storing data including at least one physical parameter of the semiconductor die in computer memory and using the stored data in conjunction with a machine vision system to recognize the location and orientation of the semiconductor die and the selected portion.

27. (Previously presented) The method of claim 26, further comprising using the stored data, in conjunction with the machine vision system, to selectively form the layer of resin stereolithographically over the selected portion of the semiconductor die.

28. (Previously presented) The method of claim 24, wherein subjecting comprises subjecting portions of the layer other than at locations of leads of lead frame to the controllable beam of radiation.

29. (Previously presented) The method of claim 24, wherein forming comprises forming the layer with at least a portion thereof underlying a lead of lead frame.

30. (Previously presented) The method of claim 29, further comprising removing at least some of the protective layer in the at least semisolid state from the active surface.

31. (Previously presented) The method of claim 30, further comprising subjecting at least the protective layer in the at least semisolid state to a secondary curing.

32. (Previously presented) The method of claim 31, wherein the secondary curing comprises increasing a temperature of the protective layer.

33. (Previously presented) A method for forming a protective layer on a selected portion of an active surface of a semiconductor die of a wafer, comprising:

securing the wafer to a platform;

recognizing a location and orientation of at least one selected die of the wafer and bond pads on the active surface of the at least one selected die;

submerging the platform in a liquid resin to a controlled liquid depth at least over at least a portion of the active surface of the at least one selected die; and

subjecting at least one selected portion of the liquid resin over the active surface of the at least one selected die to a discrete beam of focused radiation to alter the liquid resin in the at least one selected portion to at least a semisolid state and form a layer of semisolid material adhered to the active surface.

34. (Previously presented) The method of claim 33, further comprising storing data including at least one physical parameter of the at least one selected die of the wafer, in computer memory, and using the stored data in cooperation with a machine vision system to recognize the location and orientation of the at least one selected die, and to control a path of the discrete beam of focused radiation to stereolithographically form the layer of semisolid material.

35. (Previously presented) The method of claim 34, wherein storing data comprises merging the data for at least one physical parameter for the at least one selected die with data for controlling the subjecting at least one selected portion of the liquid resin over the active surface of the at least one selected die to a discrete beam of focused radiation.

36. (Previously presented) The method of claim 33, wherein securing the wafer to the platform comprises stereolithographically forming wafer supports on the platform to horizontally secure the wafer.

37. (Previously presented) The method of claim 33, wherein securing the wafer to the platform comprises placing the wafer on the platform and stereolithographically forming semisolid edge supports securing an edge of the wafer to the platform.

38-51. (Canceled)

52. (Previously presented) A method for securing a component of a semiconductor device assembly to another component of the semiconductor device assembly, comprising:
providing the component, the component including at least one support structure on a portion of a surface thereof, the at least one support structure comprising a plurality of superimposed, contiguous, mutually adhered layers of material, at least an outermost layer of the plurality of layers comprising an adhesive material;
aligning the component with the another component; and
securing the component to the another component with the adhesive material.

53. (Previously presented) The method of claim 52, wherein providing comprises providing the component with at least the outermost layer of the plurality of layers comprising a thermoplastic material.

54. (Previously presented) The method of claim 53, wherein securing comprises heating at least portions of the thermoplastic material to at least soften the thermoplastic material.

55. (Previously presented) The method of claim 54, further comprising, substantially simultaneously with heating at least portions of the thermoplastic material, heating at least one conductive structure of at least one of the component and the another component to secure the at least one conductive structure to a contact of the other of the component and the another component.

56. (Original) The method of claim 52, further comprising securing at least one conductive structure of at least one of the component and the another component to a contact of the other of the component and the another component.